UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/838,170	04/20/2001	Shigemi Kurashima	1614.1162	9034

21171 7590 11/27/2007

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER	
NGUYEN, KIMNHUNG T	
ART UNIT	**PAPER NUMBER**
2629	
MAIL DATE	**DELIVERY MODE**
11/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/838,170	KURASHIMA ET AL.	
	Examiner	Art Unit	
	Kimnhung Nguyen	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *12-15 and 24-27* is/are allowed.

6)☒ Claim(s) *1-11,16-23 and 28-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This application has been examined. The claims 1-30 are pending. The examination results are as following.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-11, 16-23 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hum et al. (US 6,714,133) in view of Sutton et al. (US 6,915,112)

Regarding claims 1, 16, Hum et al. discloses in figure 1, an input system (10) comprising an information generation part which generates input information (12) based on a given input operation; a transmission part (6) substantially transmitting a first signal and a second signal (corresponds to combination lines 14a-14b) through a wave direction unit (corresponds to communication lines 14a to 14n , and coupling ports 16a to 16n, the coupling ports may be circular loops and operate as antennas to transmit the interrogation signals wireless, see col. 3, line 54-58) generated by having a plurality of different carrier frequencies modulated with the same input information (see interrogator 12 may generate signals of different radio frequencies, see col. 8, lines 21-24, col. 10, lines 35-38); and a reception part (6) receiving the transmitted signals and demodulating (4) the signals into the same input information (12).

However, Hum et al. does not disclose a simultaneously transmitting a first signal and a second signal with the same input.

Sutton et al. disclose in fig. 6, disclose a simultaneously transmitting a first signal and a second signal with the same input (see multiple radios in the same device, the both radios can be used simultaneously, they maybe able to receive or send signals at the same time (see col. 7, lines 16-17 and lines 56-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the transmitting system having a first and a second signals are transmitted simultaneously from the same antenna as taught by Sutton et al. into the information generation part generating input information based on a given input operation of Hum et al. for producing the claimed invention because this would provide both radios can be used simultaneously, for instance both radios may be to receive at the same time, both radios may be able to send at the same time (see col. 7, lines 57-59).

Regarding claims 2, 17, Hum discloses in figure 1, the input system further comprising wave direction parts (also are the signals 17a-17c) which are provided close to said transmission part so as to provide the signals transmitted from said transmission part with directivity.

Regarding claims 3, 18, Hum discloses wherein said wave direction parts are antennas (see signals 17a-17c).

Regarding claims 4, 19, Hum discloses in fig. 1, the transmission part (6) comprises a plurality of transmission circuits (2, 4, 5, and 7) for transmitting the signals of the different carrier frequencies as discussed above.

Regarding claims 5-6, 20-21, Hum discloses in figure 1, the transmission part (6) comprises an output part (8) which successively outputs of the different carrier frequencies and modulation part (4) as discussed above.

Regrading claim 7, Hum discloses in fig. 1, the reception part (6) comprises a plurality of reception circuits (4, 5, and 7) for receiving the transmitted signals and demodulating (4) the signals into the input information (10).

Regarding claims 8-9, Hum discloses the input system further comprising an inherent pad member (because input device (9) is a keypad, keyboard or another input device (see col. 6, lines 51-53) and including conductive wire (see col. 3, lines 53-56), and further comprising a conductive part (see keyboard).

Regarding claims 10, 23, Hum discloses further an inherent conductive plate member (see keyboard associated with objects such as dashboards and provide feedback to the user), and conductive part (keyboard), therefore, wherein said conductive part contacts said conductive plate member so that the signals transmitted from the transmission part are transmitted via said conductive part to the conductive plate member.

Regarding claim 11, Hum discloses in fig. 1, the input system comprising a plurality of wave direction parts (see signals 17a-17c) for receiving the signals transmitted from said transmission part (6), said wave direction parts being provided on a side of said reception part (6).

Regarding claims 28, 29, Hum discloses further, wherein said transmission part comprises a switching part (5) that causes switching between the different carrier frequencies (see fig. 1, see col. 8, lines 21-24, col. 10, lines 35-38); so that the different carrier frequencies are alternately modulated with the input information

Regarding claim 30, Hum discloses in fig. 1, an input device, comprising an information generation part generating input information (10) based on an input operation; and a transmission

part (6) substantially simultaneously transmitting the same input information by a plurality of carrier frequencies (see col. 8, lines 21-24, col. 10, lines 35-38).

Allowable Subject Matter

4. Claims 12-15 and 24-27 are allowed.

5. The following is a statement of reasons for the indication of allowable subject matter: None of the cited art teaches or suggests that an input system comprising a reception part receiving the transmitted signal through each of the wave direction parts and demodulating the received signals into the same input information, wherein the signal transmitted at a timing from the transmission part is provided alternately to the wave direction parts so that the same input information is transmitted alternately through the wave direction parts as claims 12 and 24.

Response To Arguments

6. Applicant's arguments filed on 9/7/07 have been fully considered but they are not persuasive.

Applicants states that "Sutton, does not teach, in particular, an input system including"simultaneously transmitting a first signal and a second signal through a wave direction unit, the first signal and the second signal being generated by having a plurality of different carrier frequencies modulated with the same input information."

"Applicants submit the Examiner's interpretation of the art relied on in support of the rejection is incorrect. By contrast, Sutton merely teaches that in Fig. 6:
Coupler and splitter 640 combines signals from the transmitters and provides the transmitted signal to the antenna 670.

"That is, according to Sutton, although transmitters 660A and 660B of fig. 6 may out "a first signal and a second signal", the output first and second signals are combined in the coupler and splitter 640, and only a single combined signal is provided to the antenna 670 to be transmitted"

"However, as recited by claim 1 of the present invention, for example, a transmission part transmits two separate first and second signals through a wave direction unit".

Examiner respectively disagrees because Hum discloses a transmission part transmitting a first signal and a second through a wave direction unit, however, Hum does not disclose that the transmission part simultaneous a first and a second signals, with the same input. Sutton et al. disclose Sutton et al. disclose in fig. 6, disclose a simultaneously transmitting a first signal and a second signal with the same input (see multiple radios in the same device, the both radios can be used simultaneously, they maybe able to receive or send signals at the same time (see col. 7, lines 16-17 and lines 56-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the transmitting system having a first and a second signals are transmitted simultaneously from the same antenna as taught by Sutton et al. into the information generation part generating input information based on a given input operation of Hum et al. for producing the claimed invention because this would provide both radios can be used simultaneously, for instance both radios may be to receive at the same time, both radios may be able to send at the same time (see col. 7, lines 57-59). For these reasons, the rejections are maintained.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number is (571) 272-7698. The examiner can normally be reached on MON-FRI, FROM 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kimnhung Nguyen
November 22, 2007

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600